

Amendments to the Claims

Please amend claims 1, 8, 15, 22 and 31 as follows:

1. (Currently amended) A method for improving the extinction ratio of a grouping of polarization maintaining (PM) fibers comprising:
providing a plurality of PM fibers, said PM fibers each having corresponding principal axes;
disposing said plurality of PM fibers [together] beside one another as a grouping, said grouping having corresponding secondary axes; and
aligning each of said plurality of PM fibers such that said corresponding principal axes of each of said plurality of said PM fibers and said secondary axes of said grouping intersect at a predetermined angle while maintaining distinct optical transmission paths in each of said fibers in said grouping.

2. (Original) The method of claim 1, wherein at least one of said predetermined angles is approximately 0° .

3. (Original) The method of claim 1, wherein at least one of said predetermined angles is approximately 90° .

4. (Original) The method of claim 1, wherein said PM fiber comprises a PANDA fiber.

5. (Cancelled)

6. (Original) The method of claim 1, wherein said PM fiber comprises a BOWTIE fiber.

7. (Original) The method of claim 1, wherein said PM fiber comprises a PM fiber using SAP.

8. (Currently amended) A apparatus which improves the extinction ratio of a grouping of polarization maintaining (PM) fibers comprising:

a plurality of PM fibers, said PM fibers each having corresponding principal axes;

said plurality of PM fibers disposed [together] beside one another as a grouping, said grouping having corresponding secondary axes; and

whereby each of said plurality of PM fibers is aligned such that said corresponding principal axes of each of said plurality of said PM fibers and said secondary axes of said grouping intersect at a predetermined angle while maintaining distinct optical transmission paths in each of said fibers in said grouping.

9. (Previously amended) The apparatus of claim 8, wherein at least one of said predetermined angles is approximately 0°.

10. (Previously amended) The apparatus of claim 8, wherein at least one of said predetermined angles is approximately 90°.

11. (Previously amended) The apparatus of claim 8, wherein said PM fiber comprises a PANDA fiber.

12. (Cancelled).

13. (Previously amended) The apparatus of claim 8, wherein said PM fiber comprises a BOWTIE fiber.

14. (Previously amended) The apparatus of claim 8, wherein said PM fiber comprises a PM fiber using SAP.

15. (Currently amended) A apparatus which improves the extinction ratio of a grouping of polarization maintaining (PM) fibers comprising:

a plurality of polarization maintaining fiber means, said fiber means each having corresponding principal axes;

said plurality of fiber means disposed [together] beside one another as a grouping, said grouping having corresponding secondary axes; and

whereby each of said plurality of fiber means is aligned such that said corresponding principal axes of each of said plurality of said fiber means and said secondary axes of said

grouping intersect at a predetermined angle while maintaining distinct optical transmission paths in each of said fibers means in said grouping.

16. (Previously added) The apparatus of claim 15, wherein at least one of said predetermined angles is approximately 0° .

17. (Previously added) The apparatus of claim 15, wherein at least one of said predetermined angles is approximately 90° .

18. (Previously added) The apparatus of claim 15, wherein said fiber means comprises a PANDA fiber.

19. (Previously added) The apparatus of claim 15, wherein said fiber means comprises a BOWTIE fiber

20. (Previously added) The apparatus of claim 15, wherein said fiber means comprises a PM fiber using SAP.

21. (Currently amended) A polarization beam splitter/combiner comprising:
a body having a single mode fiber and a pigtail pair each optically coupled to said body;
said pigtail pair comprising a plurality of polarization maintaining (PM) fibers, said PM fibers each having corresponding principal axes;
said plurality of PM fibers disposed together as a grouping, said grouping having corresponding secondary axes; and
whereby each of said plurality of PM fibers is aligned such that said corresponding principal axes of each of said plurality of said PM fibers and said secondary axes of said grouping intersect at a predetermined angle while maintaining distinct optical transmission paths in each of said fibers in said grouping.

22. (Currently amended) The polarization splitter/combiner of claim [22] 21, wherein said pigtail pair is disposed within a ferrule and said plurality of PM fibers are affixed with epoxy.

23. (Previously added) The polarization beam splitter/combiner of claim 22, wherein said alignment of said axes is maintained throughout the curing process of said epoxy.

24. (Previously added) The polarization beam splitter/combiner of claim 23, wherein the polarization direction of light traveling through each of said PM fibers remains unaffected throughout said curing process.

25. (Previously added) The apparatus of claim 24, wherein at least one of said predetermined angles is approximately 0° .

26. (Previously added) The apparatus of claim 24, wherein at least one of said predetermined angles is approximately 90° .

27. (Previously added) The apparatus of claim 24, wherein said PM fiber comprises a PANDA fiber.

28. (Previously added) The apparatus of claim 24, wherein said PM fiber comprises a BOWTIE fiber.

29. (Previously added) The apparatus of claim 24, wherein said PM fiber comprises a PM fiber using stress applying parts (SAP).

30. (Previously added) The apparatus of claim 8 or 15, wherein said grouping is disposed within a ferrule and said plurality of PM fibers are affixed with epoxy.

31. (Currently amended) The polarization splitter/combiner of claim [8 or 15] 30, wherein said alignment of said axes is maintained throughout the curing process of said epoxy..

32. (Previously added) The apparatus of claim 8 or 15, wherein the polarization direction of light traveling through each of said PM fibers remains unaffected throughout said curing process.

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33. (Previously added) The method of claim 1, further including the act of disposing said grouping within a ferrule and affixing said plurality of PM fibers together with epoxy.

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34. (Previously added) The method of claim 33, further including the act of maintaining said alignment of said axes throughout the curing process of said epoxy.

35. (Previously added) The method of claim 34, further including the act of maintaining the polarization direction of light traveling through each of said P M fibers throughout said curing process.
